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http://www.yahoo.co.uk and /docs/info/include.htm
http://add.yahoo.com/fast/ad
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(54) Abstract Title
Accessing information according to subject heading

(57)   A computer network comprises a plurality of computers 10 connected to the Internet 11 via respective
servers 12, which can store information provided by their respective computer 10 , at an address or so-called
URL. Each computer 10 is selectively connectable via the Internet 11 to a remote database 13 containing a
plurality of subject headings, under selected ones of which the URLs of relevant sources of information have
been stored by the providers of the information. Each computer 10 an access the database to display a list of
the subject headings and the URL of any information sources stored under a selected heading. The network
has the advantage that the information providers are themselves able to categorise and update the URL of
their own information on the database. Furthermore, users are able to directly access the subject headings
which are of interest to them, with a view to accessing relevant sources of information located at the URLs
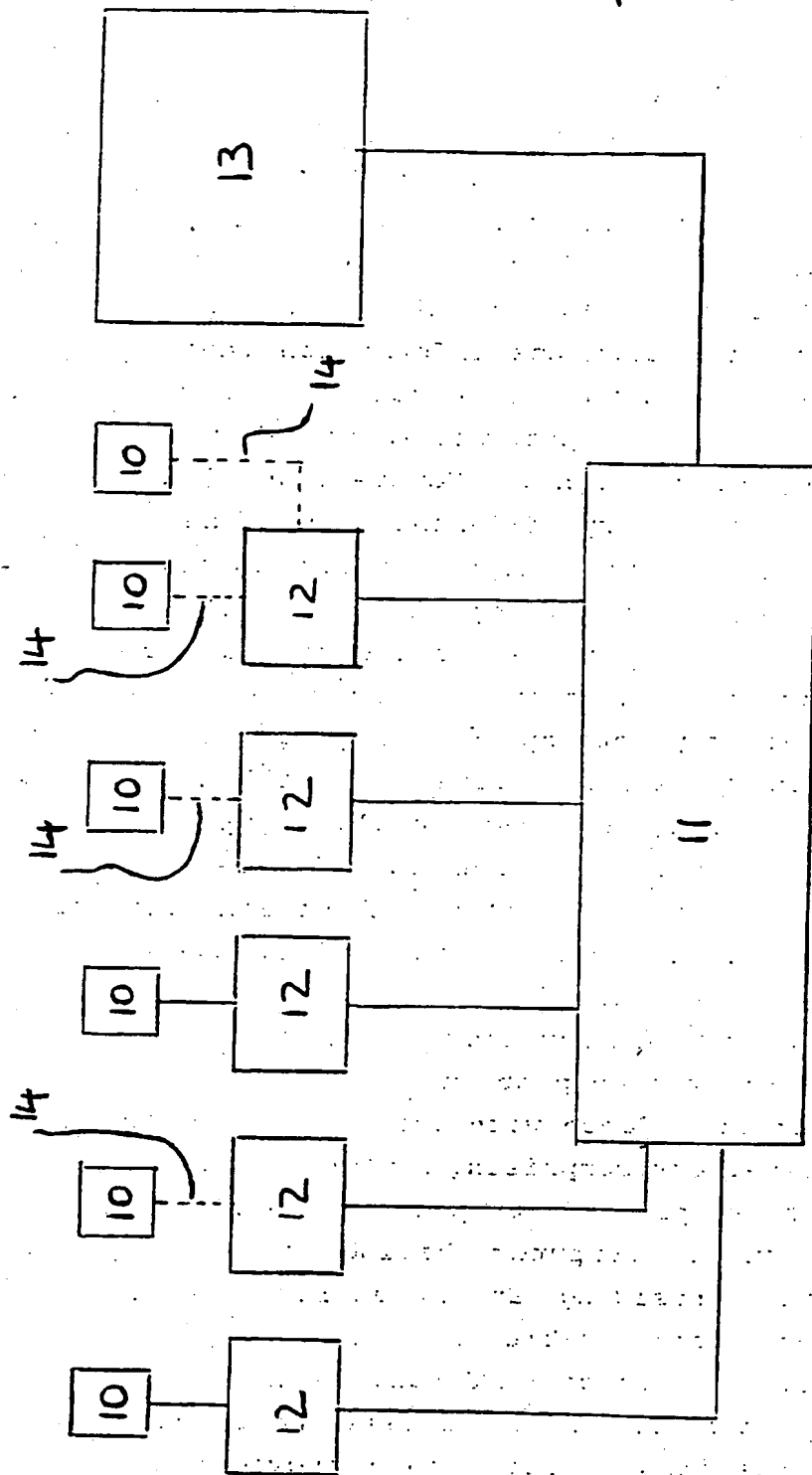listed under those headings.

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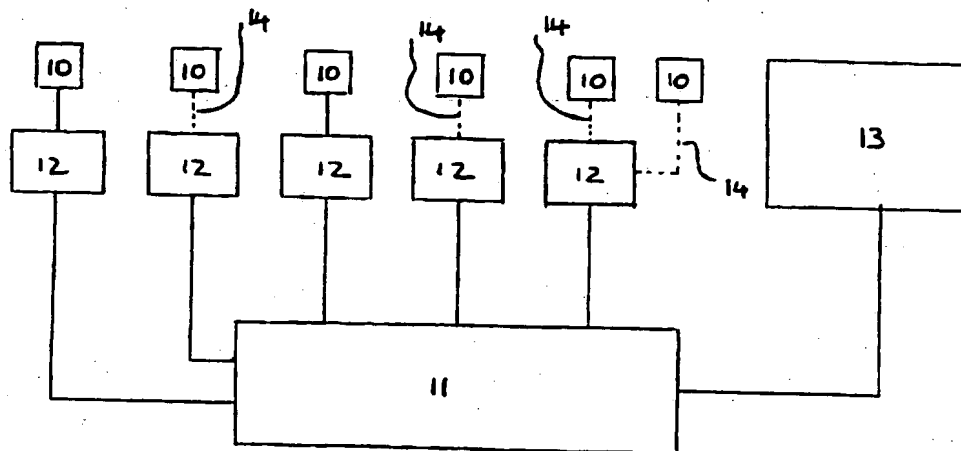
At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

This print takes account of replacement documents submitted after the date of filing to enable the application to comply
with the formal requirements of the Patents Rules 1995

FIG. 1

Computer Network

This invention relates to a computer network.

It is well known to network remote computers. One such computer network comprises the so-called internet, in which users are able to access information provided by providers that

5 are located all over the world.

A disadvantage of the internet is that it can be difficult to locate the information that is being provided. It is well known to use search engines to find information, wherein the user can enter keywords relating to the information

10 which is being sought. However, a disadvantage of search engines is that very different results can be obtained merely by changing the order and/or spelling of the keywords. Another disadvantage of search engines is that the information that is available on the internet is identified and referenced by the

15 search engines themselves, which means that new or updated information may not appear straightaway. Old references will remain on a search engine and will not automatically be removed. Thus, the user could be provided with list of information which is either out of date or unavailable.

20 Another disadvantage of search engines is that new providers of information can find it difficult to get their information referenced.

We have now devised a computer network which alleviates the above-mentioned problems.

25 In accordance with this invention there is provided a computer network comprising a plurality of computers including more than one provider computer and a least one user computer, each provider computer having an associated source of information residing at an address, said computers being

30 selectively connectable to a remote database containing a plurality of subject headings, each provider computer being arranged to access said database and to display a list of the subject headings therein, each provider computer also being arranged to transmit the address of its associated information

35 source to said remote database for storage therein under one or more of selected said subject headings, the or each user

computer being arranged to access said database and to display a list of the subject headings therein, the or each user computer also being arranged to request the address of any information sources stored under a selected heading on the 5 database.

In one embodiment at least one of the provider computers comprises an information source. Alternatively, at least one of the provider computers comprises a remote information source, say located at a network provider computer.

10 In use, the provider of information accesses the remote database, say via the internet, and stores the address or so-called URL of its associated information source, under one or more of the subject headings on the database.

When a user wants information on a particular subject, 15 he accesses the database, again via the internet, and obtains a list of the available subject headings therein.

The user then selects which subject heading is of interest, whereupon the database preferably provides the URLs of information sources that are listed under that heading. The 20 user can then access the information at each source directly by entering or selecting its URL.

The network has the advantage that the information providers are themselves able to categorise and update their own information on the database. Furthermore, users are able 25 to directly access the subject headings which are of interest to them.

Preferably the database is arranged to store a text descriptor or so-called headline together with address that are stored on the database, so that the or each user can view the 30 headline of the information sources that are listed under chosen subject headings. The or each user is thus able to more accurately select which of the information sources are to be accessed.

In one embodiment at least one of the provider 35 computers is arranged to transmit the headline of its associated information source to said remote database for storage therein together with the address of its information source.

Alternatively, a portion of the information at an

information source may form the headline for that information.
In this arrangement, each information source is preferably
monitored, the database being updated in the event that the
headline of that source changes.   Thus, the database is
5 constantly kept up-to-date. Preferably the information source
comprises storage means and processor means arranged to monitor
information in said storage means.

Preferably the processor means can be set to
periodically monitor the information in said storage means.
10 Preferably the database is arranged to poll said
information sources, in order to determine whether they are
still active.

Preferably the or each user computer are arranged to
request details of updated or new information on the database
15 under one or more of said subject headings.

Preferably, the or each user computer comprises is
arranged to search headline on the database, in response to
keywords. Thus, the user can conduct keyword searches solely
within the subject headings that he is interested in.
20 Preferably each subject heading comprises sub-headings,
which enable subject matter areas to be accessed more
accurately.

Preferably the database comprises storage means in each
subject heading for storing messages transmitted by said user
25 computers. Thus, if a user has a query regarding a particular
subject, he can leave a message on the database under the
relevant subject heading, so that other users or information
providers who enter the heading can monitor the information.
Also, in accordance with this invention there is
30 provided a method of providing information on a computer
network, the method comprising storing the information at an
information source, selecting, on a provider computer, a
subject heading from a list of subject headings contained in
a remote database and transmitting the address of said
35 information source to said database for storage under said
subject heading.
Also, in accordance with this invention there is
provided a method of accessing information on a computer
network the method comprising selecting, on a user computer,

a subject heading from a list of subject headings contained in a remote database, transmitting details of information sources listed on the database under the selected subject heading to said user computer, selecting an information source to be

5 accessed and accessing the source using the location address of the information source, which is provided by said database.

An embodiment of this invention will now be described by way of example only and with reference to the accompanying drawing, the single figure of which is a block diagram of a

10 computer network in accordance with this invention.

Referring to the drawing, there is shown a computer network comprising a plurality of computers 10 connected to the internet 11 via servers 12. Some of the computers 10 may be directly connected to their own server 12, whereas typically

15 most of the computers 10 are connected to the internet 11 by remote servers 12, which serve a plurality of computers 10 that are selectively connectable thereto by telephone or data lines 14.

Each computer 10 is able to store a certain amount of

20 information on its server 12, for accessing by other computers. Each block of information is given its own address code or so-called URL, so that the information can be retrieved and viewed by any computer 10 connected to the internet 11, merely by entering the URL of the information to be viewed.

25 A disadvantage of this arrangement is that information can be difficult to find unless its URL is known. It has been proposed to overcome this problem using the aforementioned search engines. However, all of these have suffered from several disadvantages.

30 In accordance with this invention, the network further comprises a broker computer 13, which is connected to the internet 11 and which has its own URL. The broker computer 13 comprises a database which is split into a plurality of subject matter headings and sub-headings. For example, there may be

35 a heading for recreational activities, under this there may be a heading for sports having a sub-heading for motorsports.

When an information provider wishes to provide information on the network, he stores the information on one of the servers 12 at a known URL. He then accesses the broker

computer 13 from one of the computers 10 and requests a list of the available subject headings from the database.

The provider of information then selects the heading that he wants his information to be referenced under, although

5   if necessary he can create a new heading.   The provider of information then enters the URL of his information, together with a brief description of the information that he is providing.   The broker computer 13 stores the URL and description in its database under the selected heading.   In

10 some instances, the brief description may actually comprise a portion of the information itself.   This is useful for, say, news providers having information which is constantly being updated.

When a user wants information on a particular subject,

15 he accesses the broker computer 13 via the internet 11, using one of the computers 10, and requests a list of all the general subject headings.   From this, he selects the heading of interest and, if appropriate, the broker computer 13 provides a list of sub-headings.   Once the user has made his final

20 selection, the broker computer 13 sends a list of the URLs and associated descriptions which have been stored on the database under the selected heading.   The user can limit the number of URLs and associated descriptions that he finds by entering keywords.   For example, under the motorsport heading, the user

25 could enter the keywords "Formula 1", so that only the URLs and descriptions of information sources having those keywords in their description are displayed.

The user is then able to directly access the information via the internet, merely by entering the URL of the

30 information that he wants to access.

The user is also able to leave a message on the database, under his chosen subject heading, so that users and providers who enter the heading can read and respond to the message.

35 Each of the information sources having descriptions which are taken from the information itself are preferably periodically monitored for any change in the date/time at which they were last changed.   If the date/time has changed, then the database is preferably updated with the new description, so

that the database is kept up-to-date.

The broker computer 13 may be arranged to periodically monitor each source of information, in order to verify that the URL is still valid. Thus, any information sources that are no
5 longer alive can be detected and removed.

The network in accordance with this invention allows information providers to index their own information on a database under the relevant subject heading. Users interested in that subject can then access all information under that
10 heading, without having to search through information that might not be relevant or up-to-date.

Claims

1) A computer network comprising a plurality of computers including more than one provider computer and a least one user computer, each provider computer having an associated source of information residing at an address, said computers being selectively connectable to a remote database containing a plurality of subject headings, each provider computer being arranged to access said database and to display a list of the subject headings therein, each provider computer also being arranged to transmit the address of its associated information source to said remote database for storage therein under one or more of selected said subject headings, the or each user computer being arranged to access said database and to display a list of the subject headings therein, the or each user computer also being arranged to request the address of any information sources stored under a selected heading on the database.

2) A computer network as claimed in claim 1, in which at least one of the provider computers comprises a said information source.

3) A computer network as claimed in claim 1, in which at least one of the provider computers comprises a remote said information source.

4) A computer network as claimed in claim 3, in which the remote information source is located at a network provider computer.

5) A computer network as claimed in any preceding claim, in which the database is arranged to store a text descriptor headline together with each address that is stored on the database, so that the or each user computer can display the headline of the information sources that are listed under chosen subject headings.

6) A computer network as claimed in claim 5, in which at

least one of the provider computers is arranged to transmit the headline of its associated information source to said remote database for storage therein together with the address of its information source.

5   7)   A computer network as claimed in claim 5, in which a portion of the information at an information source may form the headline for that information.

8)   A computer network as claimed in any preceding claim, in which each information source comprises storage means and
10   processor means arranged to monitor information in said storage means.

9)   A computer network as claimed in claim 8, in which the processor means can be set to periodically monitor the information in said storage means.

15   10)   A computer network as claimed in claim 8 or claim 9, in which the database is arranged to poll said information sources, in order to determine whether they are still active.

11)   A computer network as claimed in any of claims 8 to 10, in which the or each user computer is arranged to request
20   details of updated or new information on the database under one or more of said subject headings.

12)   A computer network as claimed in claim 5, in which the or each user computer is arranged to search a headline on the database, in response to keywords.

25   13)   A computer network as claimed in any preceding claim, in which each subject heading comprises sub-headings, which enable subject matter areas to be accessed more accurately.

14)   A computer network as claimed in any preceding claim, in which the database comprises storage means in each subject
30   heading for storing messages transmitted by said user computers.

15) A computer network substantially as herein described with reference to the accompanying drawing.

16) A method of providing information on a computer network, the method comprising storing the information at an
5 information source, selecting, on a provider computer, a subject heading from a list of subject headings contained in a remote database and transmitting the address of said information source to said database for storage under said subject heading.

10 17) A method of providing information on a computer network, the method being substantially as herein described with reference to the accompanying drawing.

18) A method of accessing information on a computer network the method comprising selecting, on a user computer, a subject
15 heading from a list of subject headings contained in a remote database, transmitting details of information sources listed on the database under the selected subject heading to said user computer, selecting an information source to be accessed and accessing the source using the location address of the
20 information source, which is provided by said database.

19) A method of accessing information on a computer network, the method being substantially as herein described with reference to the accompanying drawing.